Notice of Allowability	Application No.	Applicant(s)	
	10/763,337	TSUKAMOTO, TAKEO	
	Examiner	Art Unit	
	Thanh Y. Tran	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *8/3/06*.

2. ☒ The allowed claim(s) is/are *1-7 and 22-32*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

 * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

The Abstract of the Disclosure: "*In forming a high density plasma oxide film, a projection shaped like the mesa, the peaked roof, the cone or the like is formed on an element formation region.*

This projection gives rise to a problem of producing a polishing scar when the CMD (Chemical Mechanical Polishing) with a ceria slurry is performed.

A film having a polishing rate equivalent to the one of the high density plasma oxide film is formed on the high density plasma oxide film to reinforce a projection in the shape of a triangular prism, a cone or such, and, thereafter, the polishing is carried out, using a ceria slurry.

In another method, after the first CMP polishing is performed, using a silica slurry containing grains of small particle size which make no aggregation, the second CMP polishing is performed, using a ceria slurry" should be changed to:

--In forming a high density plasma oxide film, a projection shaped like the mesa, the peaked roof, the cone or the like is formed on an element formation region. This projection gives rise to a problem of producing a polishing scar when the CMD (Chemical Mechanical

Polishing) with a ceria slurry is performed. A film having a polishing rate equivalent to the one of the high density plasma oxide film is formed on the high density plasma oxide film to reinforce a projection in the shape of a triangular prism, a cone or such, and, thereafter, the polishing is carried out, using a ceria slurry. In another method, after the first CMP polishing is performed, using a silica slurry containing grains of small particle size which make no aggregation, the second CMP polishing is performed, using a ceria slurry.--

Allowable Subject Matter

3. Claims 1-7, and 22-32 are allowed.

4. The following is an examiner's statement of reasons for allowance:

The prior art of record and to the examiner's knowledge does not teach or render obvious, at least to the skilled artisan, the instant invention regarding:

A method of manufacturing a semiconductor device comprising the steps of depositing a first film through an anisotropic growth on a basic substance surface that has a difference in level; forming a second film through an isotropic growth on the first film, wherein a polishing rate of the second film is equivalent to or less than a polishing rate of the first film; and polishing the first and second films using a ceria slurry, as recited in independent claim 1. Claims 2-7, 22-25, 29-30, and 32 are dependent upon claim 1.

A method of manufacturing a semiconductor device comprising the steps of anisotropically growing a first film on a substance surface having differences in level; isotropically growing a second film which reinforces a projection on the first film, wherein a polishing rate of the second film is equal to or less than a polishing rate of the first film; and

polishing the first and second films using a ceria slurry as recited in claim 26. Claims 27-28 and 31 are dependent upon claim 26.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Y. Tran whose telephone number is (571) 272-2110. The examiner can normally be reached on M-F (9-6:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on (571) 272-2429. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TYT

Zandra V. Smith
Supervisory Patent Examiner
2 Oct. 2006